

REMARKS/ARGUMENTS

In the Final Office Action of January 20, 2006 (the "Final Office Action"):

1. Claim 19 is rejected under 35 U.S.C. 112, 2nd paragraph.
2. Claims 1-7, 13-19, and 49-50 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Pat. No. 5,662,647 issued to Crow et al. ("Crow et al."); and
3. Claims 1-19 and 49-50 are rejected under 35 U.S.C. §103(a), as being unpatentable over U.S. Pat. No. 5,630,812 issued to Ellman et al. ("Ellman et al.") in view of Crow et al.

1. **Rejection of Claim 19 under 35 USC 112, 2nd paragraph:**

Claim 19 is rejected under 35 U.S.C. 112, 2nd paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, it is asserted in the Final Office Action that there is insufficient antecedent basis for the "the first layer" recited therein.

Claim 19 has been amended so that the term "the first layer" is replaced by the term "the first insulation material" (which has antecedent basis within the claim), and with such amendment, the rejection of the claim under 35 U.S.C. 112, 2nd paragraph, is believed to be overcome.

2. **Rejection of Claims 1-7, 13-19, and 49-50 under 35 USC 102(b):**

Claims 1-7, 13-19, and 49-50 are rejected in the Office Action under 35 U.S.C. 102(b) as being anticipated by Crow et al.

It is well established that a claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference. See, e.g., Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987).

Claims 1-7, 13-19, and 49-50 have at least two elements which are neither taught nor suggested in Crow et al., and therefore, Crow et al. fails to anticipate the claims.

a. Crow et al. fails to teach an “insulative sleeve” as claimed in the claims.

Independent Claims 1 and 49 respectively claim “an insulative sleeve disposed at least partially around the electrode so as to inhibit conduction of electrical current flowing from the electrode to the electrosurgical instrument” and “disposing an insulative sleeve at least partially around an electrode so as to inhibit conduction of electrical current flowing from the electrode to an electrosurgical instrument when the end-effector is coupled to the electrosurgical instrument”, and such an insulative sleeve is neither taught nor suggested by Crow et al.

Although Crow et al. teaches a sleeve 32, it does not teach that its sleeve is insulative so as to “inhibit conduction of electrical current flowing from the electrode to the electrosurgical instrument.” In fact, applicants find no statement in Crow et al. which expressly states whether its sleeve is electrically conductive or insulative.

It can be logically inferred, however, that the sleeve 32 is conductive, because it describes prior art electrosurgical instruments as having metallic sleeves which cause capacitive

coupling problems (see, e.g., Col. 2, lines 23-42) and it describes its invention as avoiding such capacitive coupling problems by using a rigid, non-conductive cannula (see, e.g., Col. 4, lines 41-48). Presumably, if the sleeve 32 were insulative, the non-conductive cannula would not be necessary, therefore, it would appear that Crow et al. contemplates its sleeve 32 to be metallic (and therefore, conductive), such as in prior art electrosurgical instruments, so that a non-conductive cannula is useful in overcoming the capacitive coupling problems caused by the metallic sleeve.

Even without such logical inference, however, it would be improper to assume that the sleeve 32 of Crow et al. were insulative, given that prior art sleeves are known to be conductive, because such an assumption would be guilty of hindsight reasoning, and it is well established that the references must be viewed without the benefit of impermissible hindsight vision afforded by the claimed invention. Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed.Cir.1986).

b. Crow et al. fails to teach "at least one internal sealing ring" as claimed in the claims.

Independent Claims 1 and 49 respectively claim "at least one internal sealing ring disposed so as to inhibit fluid from entering into an interior of the insulative sleeve and making contact with any portion of the electrode disposed therein during a minimally invasive surgical procedure" and "at least one internal sealing ring within the insulative sleeve and around the electrode so as to inhibit fluid from entering into an interior of the insulative sleeve and making contact with any portion of the electrode disposed therein

during a minimally invasive surgical procedure”, and such an at least one internal sealing ring is neither taught nor suggested by Crow et al.

Although Crow et al. teaches a single O-ring 38, it does not teach that its O-ring is disposed so as to “inhibit fluid from entering into an interior of the insulative sleeve and making contact with any portion of the electrode disposed therein.” Instead, it teaches a sliding seal that inhibits fluid leakage through its sleeve. See, e.g., claim 2 of Crow et al.

It is a significantly different thing to inhibit fluid from entering into an interior of the sleeve (as recited in applicants’ claims 1 and 49), than it is to inhibit fluid leakage through the sleeve (as taught by Crow et al.). In the first case, fluid may not enter from either end of the sleeve, and therefore, the fluid is inhibited from “making contact with any portion of the electrode disposed therein” (as recited in applicants’ claims 1 and 49). In the other case as taught by Crow et al., fluid may enter the sleeve from one end, but it cannot leave the sleeve through the other end.

Thus, in the sleeve and O-ring combination taught by Crow et al., the fluid may make contact with a portion of the electrode disposed in the sleeve if fluid is entering from the unsealed or open end of the sleeve. For example, when the O-ring is in the retracted position as shown in FIG. 3 and an aspiration process is being performed, fluid may flow into the distal end of the sleeve and make contact with the electrode disposed therein. On the other hand, when the O-ring is in the extended position as shown in FIG. 4 and the irrigation process is being performed, fluid may flow into the proximal end of the sleeve and again make contact with the electrode disposed therein.

By claiming “at least one internal sealing ring”, claims 1 and 49 cover both the situation where fluid only flows in one direction so that only one internal sealing ring may be necessary to inhibit the fluid from entering into the interior of the sleeve (e.g., a seal ring positioned at the distal opening to inhibit fluid from entering through the distal opening, or a seal ring positioned at the proximal opening to inhibit fluid from entering through the proximal opening) and the situation where fluid may flow in either direction so that two internal sealing rings may be necessary to inhibit the fluid from the entering into the interior of the sleeve (e.g., one seal ring positioned at the proximal opening and one seal ring positioned at the distal opening). Note that the two seal ring configuration has been added as new claims 51 and 52, and is fully supported in the application such as in its FIG. 10A.

Thus, Crow et al. fails to teach or suggest applicants’ “at least one internal sealing ring” as claimed in the claims, because fluid is designed to flow in either direction during the operation of the electrosurgical instrument of Crow et al., while only one sliding O-ring is provided. Although arguably the sliding O-ring may be positioned in the extended position when aspiration is performed, then repositioned in the retracted position when irrigation is performed, applicants find no teaching of such action in Crow et al., and without such teaching or at least a suggestion of such action, an assumption of such action for the purpose of rejecting the claims, would be impermissible hindsight reasoning (especially considering the “entering” vs. “through” language distinction as discussed above). See, Hodosh v. Block Drug Co., Inc., 786 F.2d 1136, 1143 n.5, 229 USPQ 182, 187 n.5 (Fed.Cir.1986).

Accordingly, Claims 1 and 49 are believed to be patentable under 35 U.S.C. 102(b) over Crow et al. for at least the foregoing reasons.

Claims 2-7, 13-19, 50 and new claims 51-52 are also believed to be patentable under 35 U.S.C. 102(b) over Crow et al. since they depend from either Claim 1 or 49, and as such, are believed to be patentable for at least the same reasons as stated in reference to Claim 1 or 49, as appropriate.

3. **Rejection of Claims 1-19 and 49-50 under 35 USC 103(a):**

Claims 1-19 and 49-50 are rejected in the Office Action as being unpatentable under 35 U.S.C. 103(a) over Ellman et al. in light of Crow et al.

To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). Also, "all words in a claim must be considered in judging the patentability of that claim against the prior art." In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970).

A case for *prima facie* obviousness has not been established against the claims, because neither of the cited references teaches the element of "at least one internal sealing ring" as claimed in the claims.

The failure of Crow et al. in teaching or suggesting the "at least one internal sealing ring disposed so as to inhibit fluid from entering into an interior of the insulative sleeve and making contact with any portion of the electrode disposed therein" has already been

explained above with respect to the rejection of claims 1-7, 13-19 and 49-50 under 35 U.S.C. 102(b).

In Ellman et al., an electrode 74 is inserted into the bore of an electrically conductive collet 24, and an electrically-insulating nose piece 44 is rotated so that a tapered section 70 of the nose piece 44 engages a tapered front 36 of the collet 24 and forces inward jaws 72 of the collet 24, thereby holding the electrode 74 in the collet jaws 72. Ellman et al. does not disclose a sealing ring in its structure for inhibiting fluid from entering into an interior of an insulative sleeve (such as the nose piece 44) and making contact with any portion of the electrode (such as electrode 74) disposed therein.

Accordingly, Claims 1 and 49 are believed to be patentable under 35 U.S.C. 103(a) over Ellman et al. in view of Crow et al., for the foregoing reasons.

Claims 2-19 and 49-52 are also believed to be patentable under 35 U.S.C. 103(a) over Ellman et al. in view of Crow et al. since the depend from either Claim 1 or 49, and as such, are believed to be patentable for at least the same reasons as stated in reference to Claim 1 or 49, as appropriate.

Conclusion

Claims 1-19, 49-50 and new claims 51-52 are pending in the application. Claims 20-48 have been cancelled without prejudice. Reconsideration of the rejected claims is respectfully requested in light of the amendments and arguments set forth herein, and an early notice of their allowability earnestly solicited.

Respectfully submitted,

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Frank Nguyen

Registration No. 39,790

Office Phone: (408) 523-2129